

REMARKS

Applicants affirm that all of the claimed subject matter was commonly owned at the time any inventions therein were made, as all applicants were employed by the same entity and were under the same obligation to assign their inventions to that entity (Office Action, page 2, lines 1-8).

Applicants thank the Examiner for the unusually prompt Office Action and respectfully request that the two PTO 1449 forms filed on November 6, 2001 (within three months of the application filing date) be considered, initialed, and returned. Applicants left a voicemail message for the Examiner on December 18th to confirm receipt of the two Information Disclosure Statements and assumed, in the absence of a reply, that the disclosures were received. If they have not been received, the Examiner is invited to contact Applicants for additional copies.

Claims 1, 16, 17, 21, and 53 have been amended for clarity.

In view of the amendments and remarks herein, reconsideration of the application is respectfully requested and, upon consideration of the Applicants' Information Disclosure Statements, allowance of the claims as amended is respectfully solicited.

Rejection Under 112

The Office Action rejected claims 1, 16, 17, 21 and 53 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention (Office Action, page 2, lines 13-19).

For the sake of clarity, Applicants have replaced language such as "optionally including" and "optionally substituted" with appropriate language including --independently-- or --substituted or unsubstituted-- following the Examiner's suggestions (see the definition of Q, and the third-to-last and second-to-last paragraphs of amended claim 1; and amended claims 16, 17, and 21).

In amended claim 53, the acronyms "PET" and "SPECT" have been replaced with -positron emission tomography--and -single-photon emission computed tomography--. Support for this amendment is found, for example, in the specification at page 24, lines 15-17.

Claim Objections

Claims 2-15, 18-20, 22-52 and 53-65 were objected to as "being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claim" (Office Action, page 3, lines 1-3). Applicants request that

these objections be withdrawn in view of the above amendments to independent claims 1, 16, 17, 21, and 53 from which the objected to claims depend.

In view of the above amendments and remarks, Applicants respectfully submit that claims 1-65 as amended are in condition for allowance and such action is respectfully solicited. As the Information Disclosure Statements were timely filed, although mailed after the first Office Action was prepared, Applicants respectfully request that any subsequent Office Action, if any, not be considered a Final Action.

No fees are believed to be due as this Reply and Amendment is being filed within three months of the mailing date of the Office Action. However, if any fees are required, Applicants authorize applying any charges to Deposit Account 10-0750/ORT1473/EDS.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'E. Shen', is written over a horizontal line.

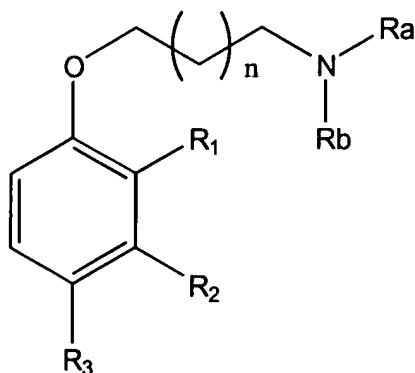
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

1. (Amended) A compound of formula (I):



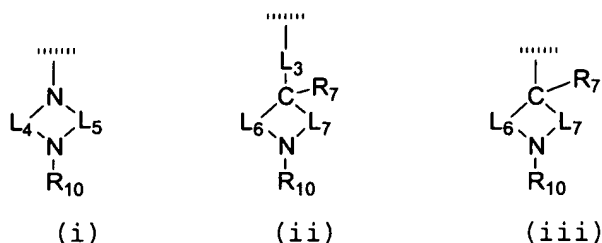
wherein R_a and R_b are independently C_{1-8} alkyl, C_{3-8} alkenyl, C_{3-8} cycloalkyl, (C_{3-8} cycloalkyl) C_{1-6} alkyl, or taken together with the nitrogen to which they are attached form a 4-7 membered heterocyclyl optionally including up to 3 additional heteroatoms;

n is 0-4;

one of R_1 , R_2 , and R_3 is G, and the remaining two are hydrogen or halo;

G is a nitrogen-containing group selected from one of the following:

$-OL_1Q$, $-L_2Q$, $-N(L_1Q)R_5$, $-L_3C(L_1Q)R_6R_7$, $-C(L_1Q)R_6R_7$,



wherein:

L_1 is C_{2-6} alkylene, C_{3-8} cycloalkylene, C_{4-6} alkenylene, C_{4-6} alkynylene, C_{2-5} alkanoyl, (phenyl) C_{1-6} alkylene, (naphthyl) C_{1-6} alkylene, (C_{2-5} heteroaryl) C_{1-6} alkylene, (phenoxy) C_{1-6} alkylene, or (C_{2-5} heteroaryloxy) C_{1-6} alkylene;

L_2 is C_{1-6} alkylene, C_{3-8} cycloalkylene, C_{3-6} alkenylene, C_{3-6} alkynylene, C_{2-5} alkanoyl, (phenyl) C_{1-6} alkylene, (naphthyl) C_{1-6} alkylene, (C_{1-5} heteroaryl) C_{1-6} alkylene, (phenoxy) C_{1-6} alkylene, (C_{1-5} heteroaryloxy) C_{1-6} alkylene, or (C_{1-5} heteroarylthio) C_{1-6} alkylene;

L_3 is C_{1-6} alkylene, C_{2-6} alkenylene, C_{2-6} alkynylene, C_{2-5} alkanoyl, (phenyl) C_{1-6} alkylene, phenyl, naphthyl, (naphthyl) C_{1-6} alkylene, (C_{1-5} heteroaryl) C_{1-6} alkylene, (phenoxy) C_{1-6} alkylene, (C_{1-5} heteroaryloxy) C_{1-6} alkylene, or C_{2-5} heteroaryl;

L_4 is C_{1-5} alkylene;

L_5 is C_{1-5} alkylene;

L_6 is C_{1-5} alkylene;

L₇ is C₁₋₅ alkylene or absent;

Q is -NR₈R₉ or a non-aromatic C₂₋₁₅ heterocyclyl ring system containing at least one nitrogen atom [and optionally], Q being unsubstituted or substituted with between 1 and 3 additional heteroatoms selected from O, S, and N in each ring;

each of R₅ and R₆ is independently selected from hydrogen, C₁₋₈ alkyl, C₂₋₈ alkenyl, C₃₋₇ cycloalkyl, (C₃₋₇ cycloalkyl)C₁₋₆ alkylene, C₂₋₁₅ heterocyclyl, and (C₂₋₇ heterocyclyl)C₁₋₆ alkylene;

R₇ is H, hydroxyl, halo, C₂₋₆ alkoxy or absent where the carbon linking L₆ and L₇ (or bonded to R₆) participates in a double bond;

each of R₈ and R₉ is independently selected from hydrogen, C₁₋₈ alkyl, C₃₋₈ alkenyl, C₃₋₇ cycloalkyl, (C₃₋₇ cycloalkyl)C₁₋₆ alkylene, C₂₋₁₅ heterocyclyl, phenyl, (C₂₋₁₅ heterocyclyl)C₁₋₆ alkylene, and (phenyl) C₁₋₆ alkylene;

R₁₀ is H, C₁₋₈ alkyl, C₃₋₈ alkenyl, C₃₋₇ cycloalkyl, (C₃₋₇ cycloalkyl)C₁₋₆ alkylene, (C₂₋₁₅ heterocyclyl)C₁₋₆ alkylene, or (phenyl) C₁₋₆ alkylene;

wherein each of the above alkyl, alkylene, alkenyl, alkenylene, alkynyl, alkynylene, heterocyclyl, cycloalkyl, and aryl groups may each be unsubstituted or substituted [independently and optionally substituted] with between 1

and 3 substituents independently selected from halo, amino, nitro, hydroxyl, and C₁₋₃ alkyl;

wherein substituents of Q can be further selected from carboxamide, C₂₋₆ alkyl, C₁₋₈ heterocyclyl, N(C₁₋₆ alkyl)(C₁₋₈ heterocyclyl), NH(C₁₋₈ heterocyclyl), (C₁₋₈ heterocyclyl) C₁₋₃ alkylene, O(C₁₋₈ heterocyclyl), C₁₋₆ alkoxy, (phenyl)C₃₋₆ cycloalkyl-O-, phenyl, (phenyl) C₁₋₃ alkylene, N(C₁₋₆ alkyl)[(phenyl)C₁₋₃ alkylene], and (phenyl)C₁₋₃ alkylene-O- where each of above heterocyclyl, phenyl, and alkyl groups may be [optionally] unsubstituted or substituted with from 1 to 3 substituents independently selected from halogen, nitro, cyano, and C₁₋₃ alkyl;

or a pharmaceutically acceptable salt, ester, or amide thereof.

16. (Amended) A compound of claim 14, wherein Q is N-morpholinyl or N-piperidinyl, [optionally] unsubstituted or substituted with between 1 and 3 substituents independently selected from hydroxyl, carboxamide, C₁₋₆ alkyl, C₁₋₈ heterocyclyl, N(C₁₋₆ alkyl)(C₁₋₈ heterocyclyl), NH(C₁₋₈ heterocyclyl), (C₁₋₈ heterocyclyl)C₁₋₃ alkylene, C₁₋₈ heterocyclyl-O-, C₁₋₆ alkoxy, (C₃₋₆ cycloalkyl)-O-, phenyl, (phenyl)C₁₋₃ alkylene, N(C₁₋₆ alkyl)[(phenyl)C₁₋₃ alkylene, and (phenyl)C₁₋₃ alkylene-O- where each of above heterocyclyl, phenyl, and alkyl groups may be [optionally] unsubstituted or substituted with from 1 to 3 substituents independently selected from halogen, nitro, cyano, and C₁₋₃ alkyl.

17. (Amended) A compound of claim 16, wherein Q is substituted with a [substituent comprising] unsubstituted or substituted C₁₋₆ heterocyclyl group selected from: pyridyl, pyrimidyl, furyl, thiofuryl, imidazolyl, (imidazolyl)C₁₋₆ alkylene, oxazolyl, thiazolyl, 2,3-dihydro-indolyl, benzimidazolyl, 2-oxobenzimidazolyl, (tetrazolyl)C₁₋₆ alkylene, tetrazolyl, (triazolyl)C₁₋₆ alkylene, triazolyl, (pyrrolyl)C₁₋₆ alkylene, and pyrrolyl.
21. (Amended) A compound of claim 20, wherein R₈ is H and R₉ is phenyl or aromatic C₁₋₈ heterocyclyl [optionally] unsubstituted or substituted with 1-3 substituents independently selected from halo, nitro, cyano, and C₁₋₃ alkyl.
53. (Amended) A compound of claim 1, 26, 27, or 41, isotopically-labelled to be detectable by [PET] positron emission tomography or [SPECT] single-photon emission computed tomography.